



Gigabit Ethernet Adapter

User's Guide

Version 1.0
P/N: ATC052702C1000SX Rev.A

This User's Guide contains important information regarding the installation of your adapter card. Please read it completely before beginning installation.

For future reference, record the serial number of your network adapter in the space below:

SERIAL number
The serial number is located on the face of the card.

Amer.com

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FCC Class B Certification Statement

Model C1000SX FCC Class B

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected to.

- Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cables must be used in order to comply with emission limits. You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment. For more information please contact the Federal Communication Commission.

CE Mark Class B Statement In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

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INTRODUCTION

Thank you for choosing the C1000SX Gigabit fiber Ethernet Card for 32/64-bit PCI Bus-equipped personal computers. The Gigabit fiber Ethernet Card is ideal for speeding up data transfers for network servers and other computers, such as those used for video-conferencing, that send and/or receive large amounts of data. It also includes the newest networking technologies, such as VLAN and multicasting support, that use network bandwidth more efficiently and further help the card maximize data throughput.

Features

- ◆ IEEE 802.3z 1000BASE-SX compliant
- ◆ Support 64/32-bit 66/33Mhz PCI Local Bus Master high-speed operation of Rev.2.1/2.2 specification
- ◆ Plug-and-Play installation
- ◆ SC type connector for 50/125 μ m or 62.5/125 μ m multi-mode fiber
- ◆ Supports Full-duplex mode doubles network data rate to 2000Mbps
- ◆ Built-in FIFO buffers reduces overhead of memory transfers
- ◆ Virtual LAN (VLAN) and long frame support. VLAN tag insertion supports for transmit packets. VLAN tag detection and removal for receive packets
- ◆ 802.3x Full duplex flow control, including automatic transmission of Pause frames based on Rx FIFO thresholds
- ◆ Two LED indicators for easy diagnostic

Gigabit Ethernet Technology

Gigabit Ethernet is an extension of IEEE 802.3 Ethernet utilizing the same packet structure, format, and support for CSMA/CD protocol, full duplex, and management objects, but with a tenfold increase in theoretical throughput over 100Mbps Fast Ethernet and a one hundred-fold increase over 10Mbps Ethernet.

The increased speed and extra bandwidth offered by Gigabit Ethernet is essential to coping with the network bottlenecks that frequently develop

as computers and their busses get faster and more users use applications that generate more traffic. Upgrading key components, such as your backbone and servers to Gigabit Ethernet can greatly improve network response times as well as significantly speed up the traffic between your subnets.

Fiber Gigabit Ethernet enables Fiber cable connections to support video conferencing, complex imaging, and similar data-intensive applications. Likewise, since data transfers occur 10 times faster than Fast Ethernet, servers outfitted with Gigabit Ethernet NIC's are able to perform 10 times the number of operations in the same amount of time.

UNPACKING AND INSTALLATION

This chapter provides unpacking and installation information for the 32/64-bit PCI Bus Gigabit fiber Ethernet card

Unpacking

CAUTION: *Under ordinary circumstances, the 64-bit PCI 1000Mbps Fiber Gigabit Ethernet Card will not be affected by static charge as may be received through your body during handling of the unit. However, there are special circumstances where you may carry an extraordinarily high static charge, and possibly damage the card and/or your computer. It is good practice to eliminate all static electricity by touching a ground (an unpainted metal area of your computer chassis, for example) before performing any installations.*

Open the shipping carton and carefully remove all items. In addition to this User's Guide, ascertain that you have:

- One C1000SX 64-bit PCI 1000BASE-SX Gigabit fiber Ethernet Card.
- One Driver Diskette
- This User's Guide.

If any item is found missing or damaged, please contact your supplier for replacement.

Installing Fiber Adapter into PCI slot

Step 1: Turn off the power to the PC.

Step 2: Remove any metal decorations from your hands and wrists.

Step 3: Remove the cover from your PC.

Step 4: Locate an empty, non-shared bus mastering 32bit or 64bit PCI slot and remove the corresponding backplate. Save the screw for use in Step 6.

Step 5: Carefully insert the Fiber Adapter into the chosen slot and press firmly with proper push to ensure it is fully seated in the slot.

Step 6: Secure the Fiber Adapter with the screw you saved in step 4.

Step 7: Replace the PC cover.

Step 8: Proceed to “Connecting to Your Network” section.

<Note>

Always ensure power is off before any installation to avoid electric shock and possible damage to equipment.

Connecting the Fiber (SC) Cable

A Multi-mode Fiber cable (50/125µm or 62/125µm, wavelength 850nm) with SC connector is required for the Gigabit fiber Ethernet Card.

For cabling requirements and maximum segment distance when connecting the Fiber Adapter to your network, please refer to the Technical Specifications on page 11.

Software Installation

Before you connect the Gigabit fiber Ethernet Card to the network, you have to install the network driver first. The driver for each networking operating system is under a separate directory. A HELP.EXE file under root directory lists the information and detailed installation procedure of all the available drivers.

LED INDICATORS

- ◆ Link
This indicator lights green when the Gigabit Card connects to a 1000BASE-SX Gigabit Ethernet Network.
- ◆ Activity (ACT)
This indicator blinks green when transmitting or receiving data on the network.

TECHNICAL SPECIFICATIONS

General	
Standards	IEEE 802.3z 1000BASE-SX compliant
Protocol	CSMA/CD
Data Transfer Rate	Gigabit Ethernet: 2000Mbps (Full-Duplex)
Topology	Star
Network Cables	50/125µm multimode fiber with SC type connector, up to 550m 62.5/125µm multimode fiber with SC type connector, up to 220m
LED Indicator	Link, Activity
Physical and Environmental	
Power Consumption	5V, 510mA
Temperature	Operating: 0° ~ 50° C, Storage: -10° ~ 70° C
Humidity	Operating: 10% ~ 90%, Storage: 5% ~ 90%
Dimensions	175 x 69 mm (W x H)
EMI:	FCC Class B, CE Mark B, VCCI-B

Amer.com Warranty Policy

Limited Lifetime Warranty

In the event of a defect in quality or workmanship, Amer.com will repair or replace any hardware product sold by Amer.com with new or reconditioned parts free of charge in North America for a limited lifetime period unless otherwise specified on the sales invoice from the date of original purchase. All removed parts become the property of Amer.com. All replaced parts assume the original warranty.

This warranty is extended only to the original purchaser. Proof of purchase will be required before warranty service is provided.

This warranty covers only failures due to defects in quality or workmanship that occur during normal use. It does not cover damage that occurs in shipment, electrical storms, floods, dropped or other acts of nature.

This warranty also does not cover any failure that results from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, modification, computer virus, improperly installed or faulty software, or service by anyone other than an Amer.com Service Technician. If there is evidence that the failure was due to user negligence, Amer.com has the right to void this warranty and or charge normal service rates for the subject repair.

The limited warranty covers a one (1) year period from date of purchase on Power Supplies, AC Adapters & Fans, after the 1 year a cost for replacement is applied to all products requiring such parts.

Amer.com is not responsible for any type of data loss on hard drive or other storage devices.

Warranty Service can be obtained during the warranty period by shipping, freight prepaid, or delivering the product to Amer.com in either the original package or a similar package providing an equal degree of protection. Amer.com will perform the required service and return the unit to the user (freight prepaid), if applicable, via the same mode (i.e. ground, air, etc.)

Limits and Expectations

There are no express warranties except as listed above.

Network products by Amer.com shall not be liable for incidental or consequential damages resulting from the use of this product. Any future upgrades, including (but not limited to) hardware and software are not covered by this limited warranty. If a hardware problem with this product develops during the warranty period, you may contact the Amer.com Service Center at:

Telephone(727) 549-0772
Facsimile (727) 549-0992

Service Center
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